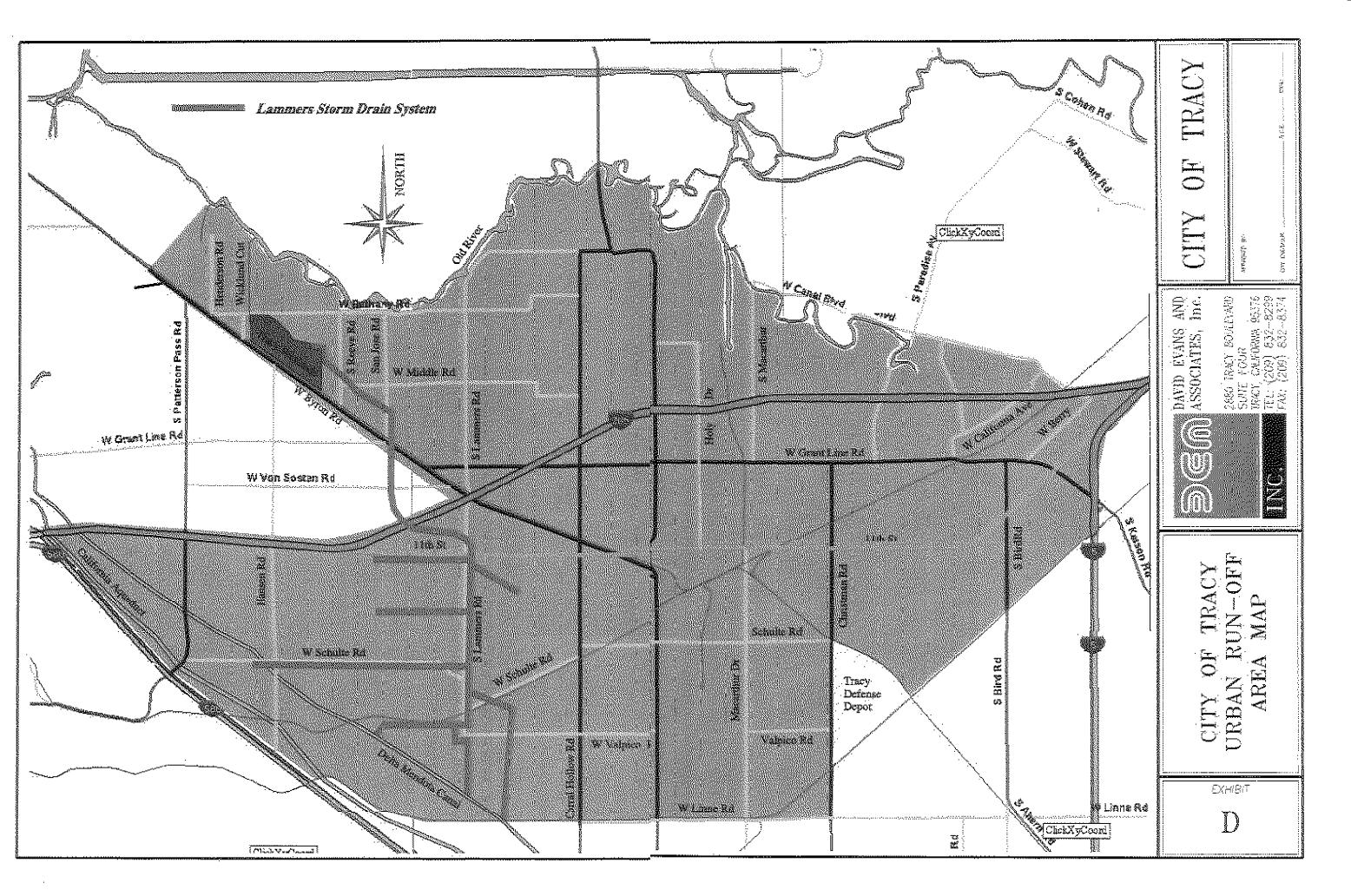
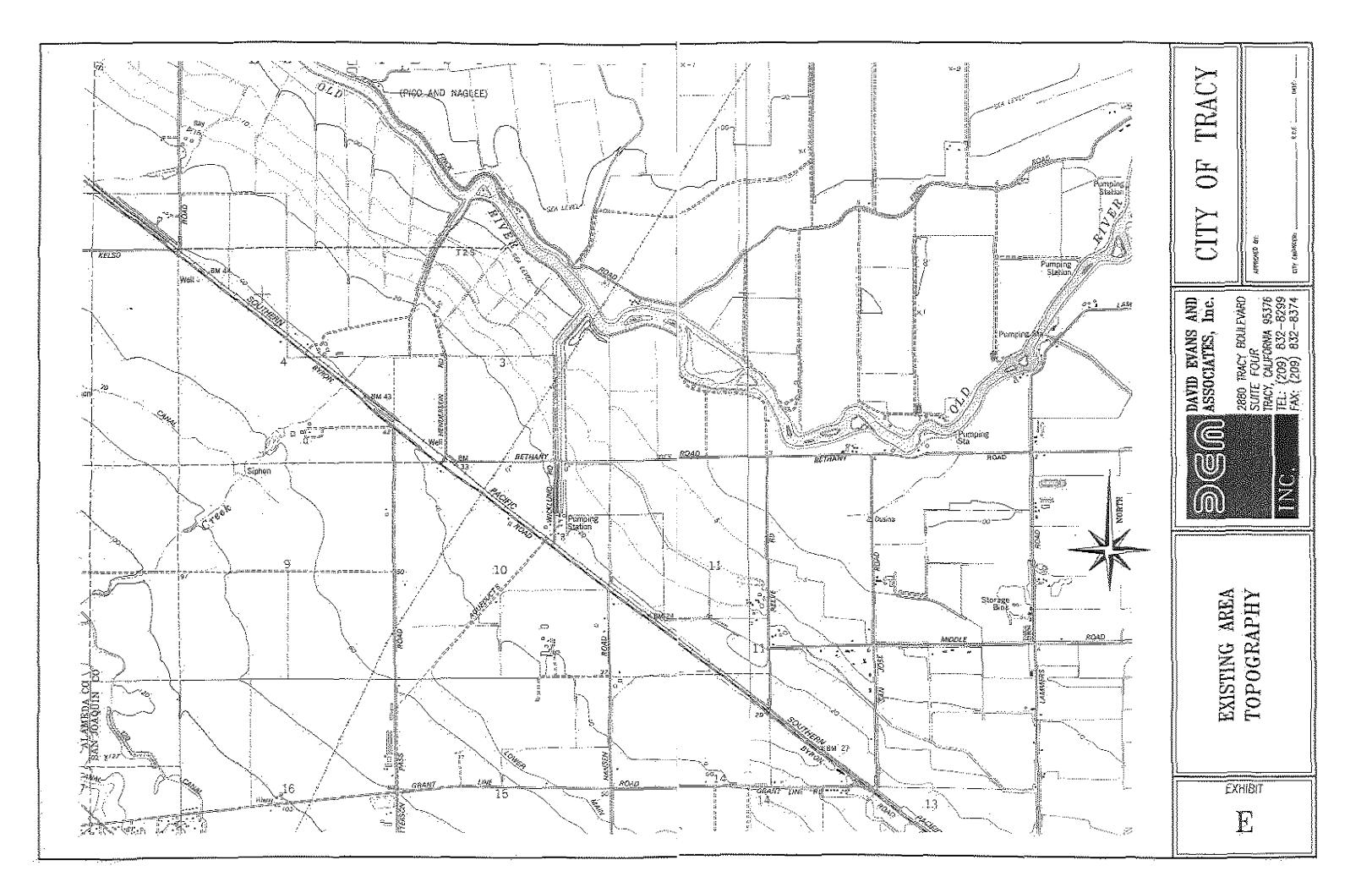
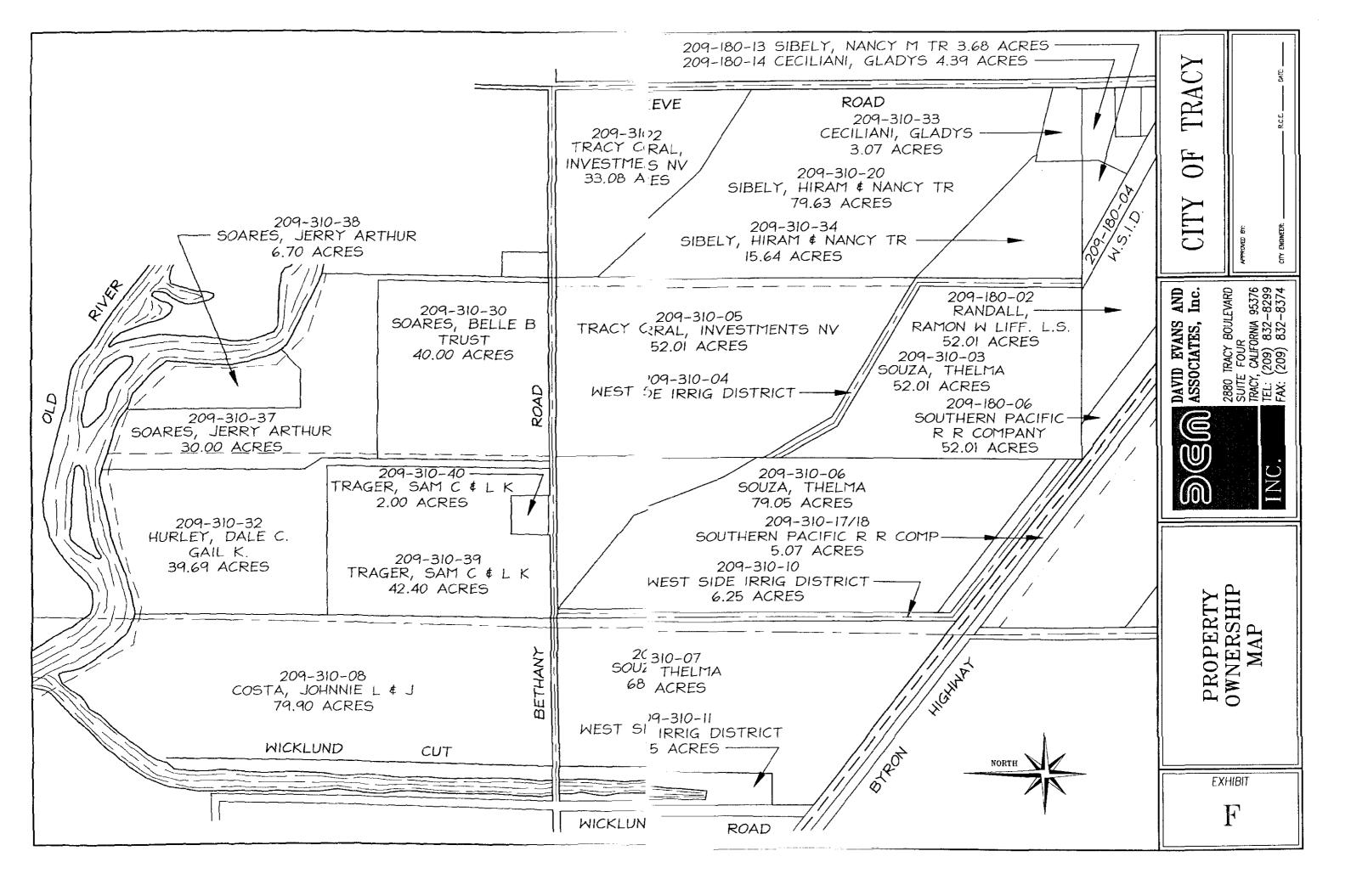
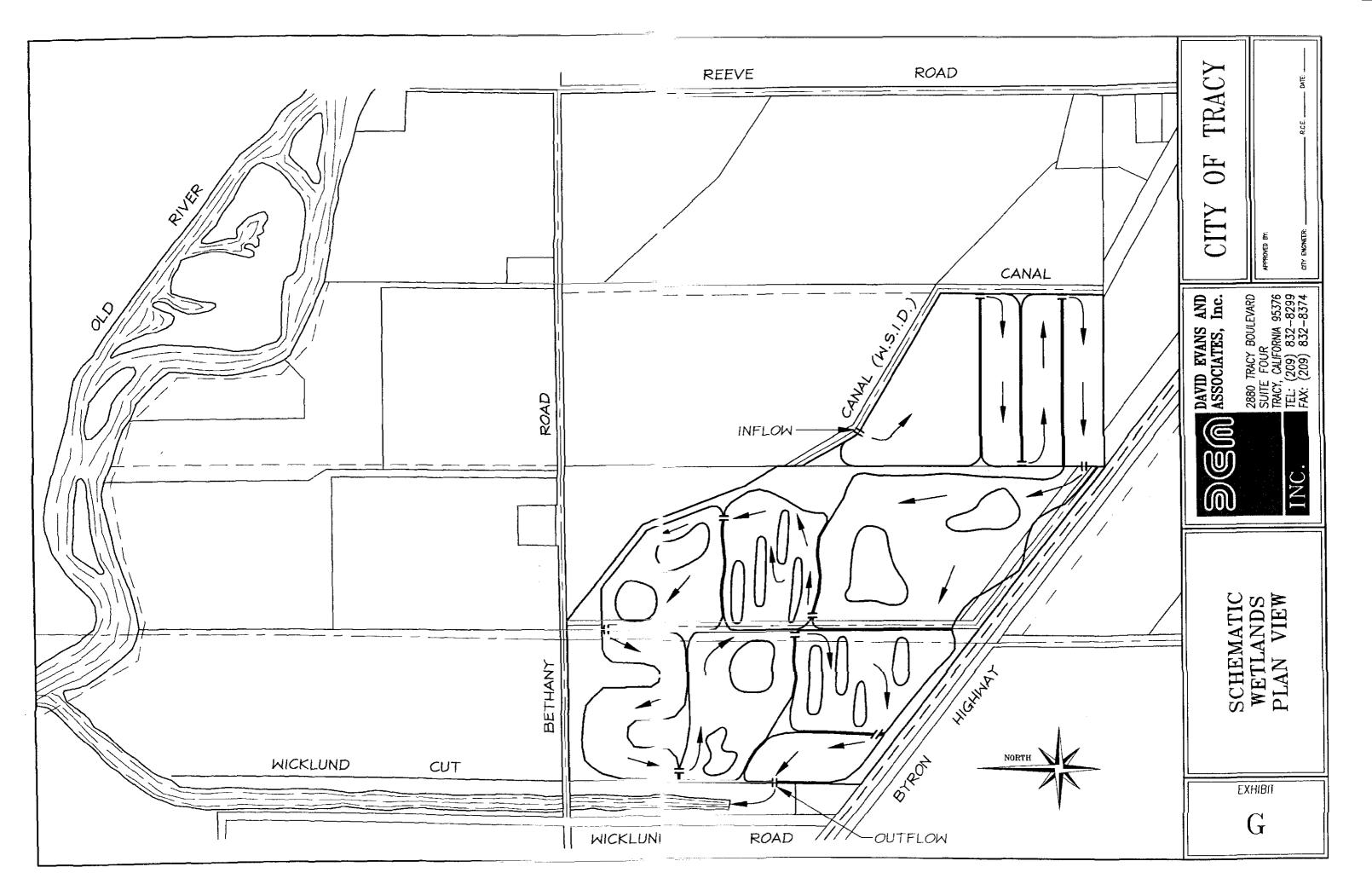


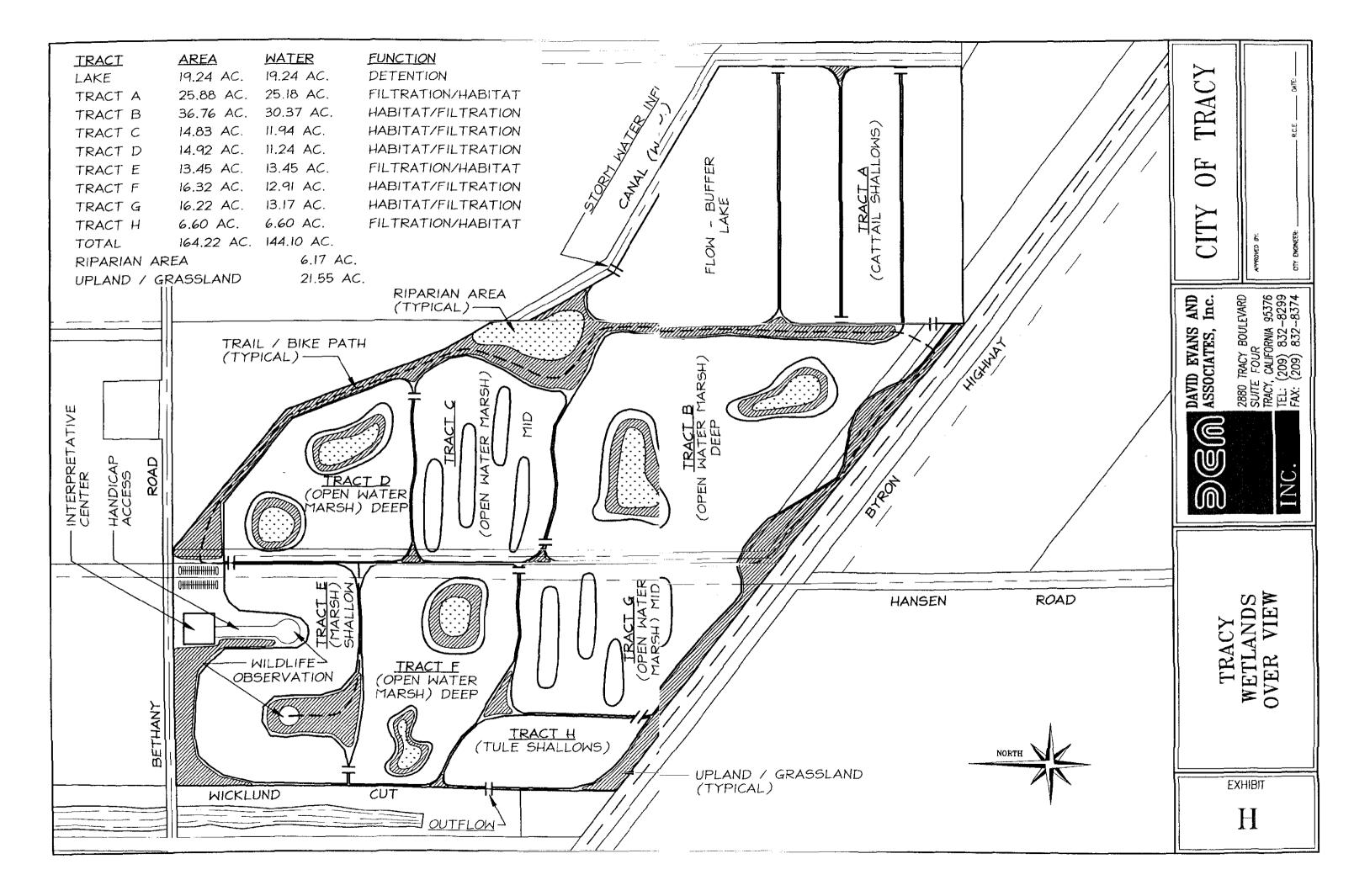
Figure 1. A Generalized Methodology for the Development of a Constructed Wetland Treatment System.

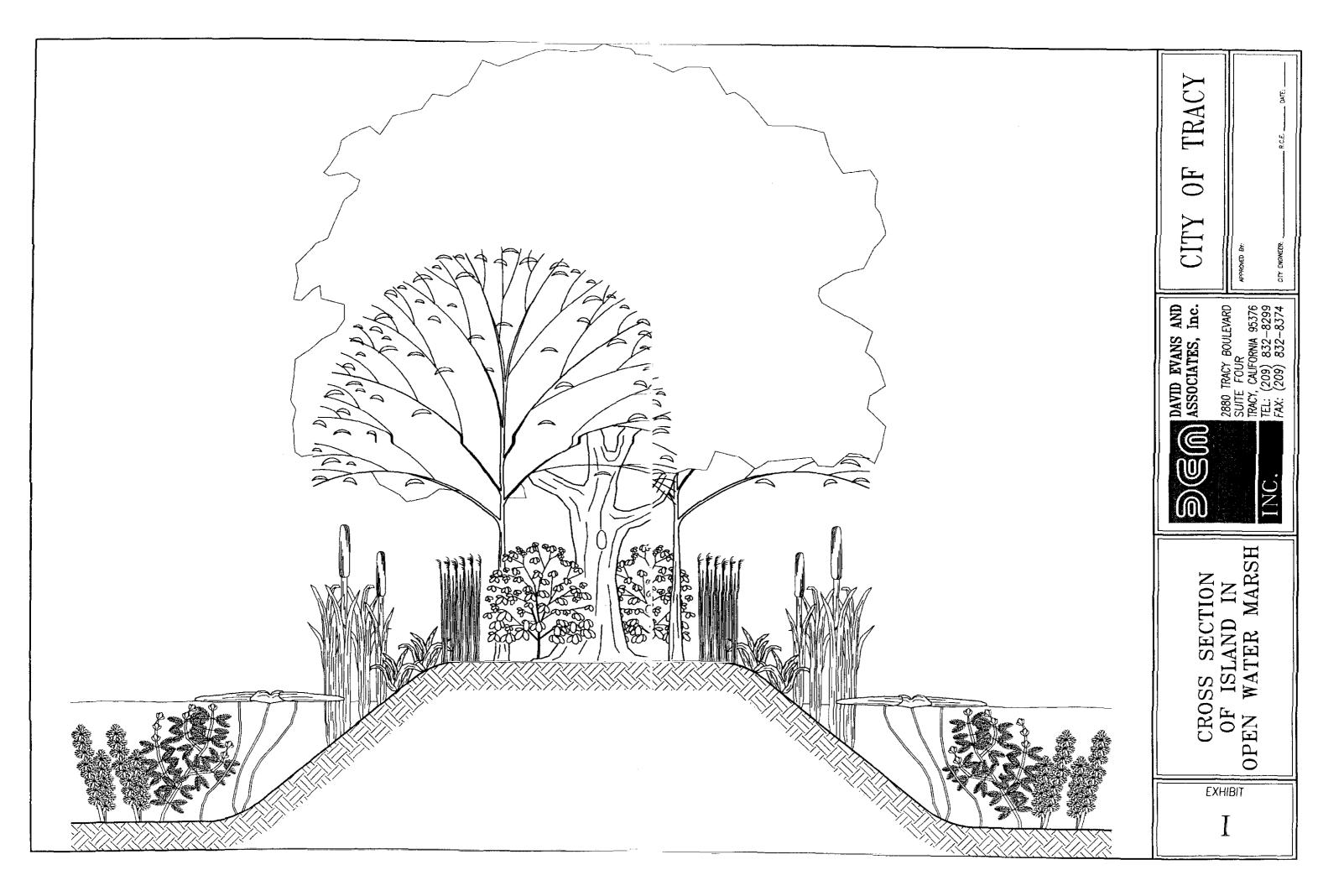












		7/14   7/10   7/25	August	0/45 0/00	September	Lowe Lowe Low	October	November	7 14444 4494 1	December   11/28   12/5   12/12   12/19	January	1 140 1 4100	February	M	arch
0	Task Name	7/11 7/18 7/25	8/1   8/8	8/10   8/22	8/29 9/5	9/12   9/19   9/2	10/3   10/1 10/17   10/2-	1   10/31   11/	/   11/34   11/21	12/20   12/20   12/12   12/19	1/2 1/9	1/16   1/23	1/30   2/6   2/13	2/20   2/27	3/5 3/12 3/19
-	Technical Studies	<b>♦</b> 7/15					· 				· · · · · · · · · · · · · · · · · ·				• • • • • • • • • • • • • • • • • • • •
		<b>X</b>													
	Existing/Future Infrastructure						· · · · · · · · · · · · · · · · · · ·			- #					
-	Define Stormwater Management Goals													·· · · · · · · · · · · · · · · · · · ·	
	Land Ownership		erederen		1			:		1					
-	Environmental Permitting Requirements					•		:						*	
	Evaluate Treatment Wetland Options			, ,,, , , , , , , , , , , , , , , , , ,							<b>∄</b> 1				
	Evaluate Wildlife Habitat Options				1								(	,	
	Determine Cultural, Recreational, Educat														
	Preliminary Construction/Maintenance Co														
1	Prepare Feasibility Report							1							
										:	1			· · · · · · · · · · · · · · · · · · ·	,
	Field Studies	<b>♦</b> 7/15			: : !										
										: : :					
	Aerial Phototopographic Mapping						<u> </u>					· · · · · · · · · · · · · · · · · · ·			
<u> </u>	Initial Monitor Stormwater Quality/Flow CI														
	Geotechnical Studies														
	Hydrologic Study/Modeling				:										

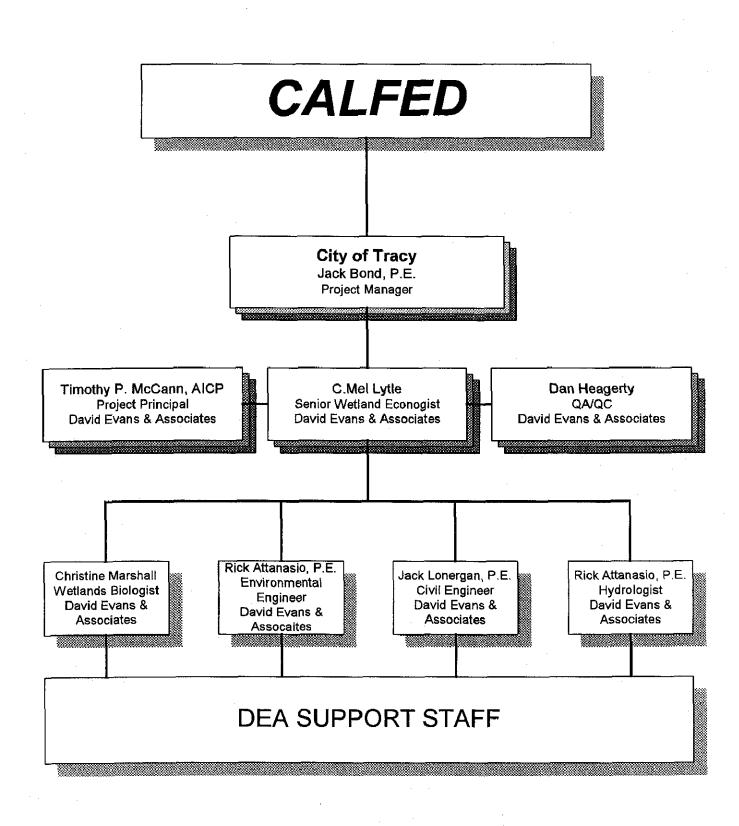
Task Rolled Up Progress Rolled Up Progress Summary Task Split Rolled Up Task External Tasks Rolled Up Task Project: City of Tracy Wetland Date: Wed 4/14/99 Split Project: City of Tracy Wetland Date: Wed 4/14/99 Project Summary Progress Rolled Up Split Project Summary Rolled Up Split Progress Rolled Up Milestone 🔷 Rolled Up Milestone Milestone Milestone Page 2 Page 1

			T	OTAL BUDGE	Т		
TASK	DIRECT	DIRECT	SERVICE	MATERIAL &	MISC & OTHER	OVERHEAD &	TOTAL
	LABOR HOURS	SALARY & BENEFITS	CONTRACTS	ACQUISITION COSTS	DIRECT COSTS	OTHER DIRECT COSTS	COST
Existing/Future Infrastructure	68	3748				2892	6640
Stormwater Management Goals	48	2551				1969	4520
Land Ownership	12	655				505	1160
Environmental Permitting Requirements	50	2613				2017	4630
Treatment Wetlands Options	168	9031				6969	16000
Habitat Wetlands Options	164	8681				6699	15380
Cultural, Recreation, Education Benefits	88	4753				3667	8420
Preliminary Construction/Maintenance Costs	74	4036				3087	7150
Prepare Feasibility Report	136	7450				5750	13200
Aerial Phototopographic Mapping			18,000				
Monitoring Stormwater Flow/Characteristics	298	16357		3,000		12623	28980
Geotechnical Studies			7,000				
Hydrology Study/Modeling	116	5923				4577	10500
aboratory Testing - Water Quality			5,000				
						TOTAL	\$149,580
Note: The provisional 1999 Overhead In addition, the Facilities and C The Direct Salary and Benefits N	apital Costs	of Money Fact	ssociates,Inc is or in accordanc	s 138.33% ce with FAR 52-2°	15.30 is 3.1%		

		•		•			
•							
				•	•		
		CITY	OF TRACY WETL	AND			
			COST SCHEDULE			<del>                                     </del>	_
			-			<u> </u>	
TASK	PROJECT	SR, WETLAND	WETLANDS	CIVIL	ENVIRONMENTAL	HYDROLOGIST	co.
	MANAGER	ECOLOGIST	BIOLOGIST	ENGINEER	ENGINEER	<u> </u>	
Technical Studies			-				
Existing/Future Infrastructure	16	12		24		16	
					<u> </u>		_
Define Stormwater Management Goals	12	16		4	8	8	ļ
Land Ownership	4	8					-
Land Ownership							
Environmental Permitting Requirements	8	16	8	4	8	6	
Evaluate Treatment Wetlands Options	16	100	8		36	8	
Evaluate Treatment vivetiands Options	10	100					
Evaluate Wildlife Habitat Options	12	100	36		12	4	
	8	60	10		10		 I
Determine Cultural, Recreational, Educational Benefits	<del>                                     </del>	80	U1		10	<del> </del>	
Preliminary Construction/Maintenance Costs	8	12	8	24	16	6	
		ļ			40	24	
Prepare Feasibility Report	96	60 384	70	<u>24</u> 80	<u>16</u> 106	<u>24</u> 72	-
	8640	38400	5600	8800	9540	6120	-
Field Studies							
							\$18
Aerial Phototopographic Mapping	<del></del>	<del>                                     </del>					\$10
initial Monitoring Stormwater/Flow Characteristics	12	220	12	8	30	16	- 3
					<u></u>	<u> </u>	
Geotechnical Studies							\$
Hydrologic Study/Modeling	12	20		8	16	60	ļ .
detailed and the second	24	240	<u>12</u>	<u>16</u>	46	<u>76</u>	
	2160	21600	1080	1440	4140	6840	\$64
· · · · · · · · · · · · · · · · · · ·				<del></del>			
		<u> </u>			SUBTOTAL		\$14
							<u> </u>
			Other Expenses:	Sam	oling containers,storage, boratory Work- Water Q	mileage	\$: \$!
				L,a	Dolatoly Work- Water Q	uanty	- <del>"</del>

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	•	4		
			•	
TASK	QUARTERLY	QUARTERLY	QUARTERLY	
	BUDGET	BUDGET	BUDGET	
	JULY-SEPT 1999	OCT-DEC1999	JAN-MARCH 2000	
Existing/Future Infrastructure	6640			
Stormwater Management Goals	4520			
Otomwater Management Coals	.520			
Land Ownership	1160			
Environmental Permitting Requirements	4630			
Treatment Wetlands Options		16000		
Habitat Wetlands Options		15380		
Cultural, Recreation, Education Benefits			8420	
Preliminary Construction/Maintenance Costs			7150	
Prepare Feasibility Report			13200	
Aerial Phototopographic Mapping	18000			
Monitoring Stormwater Flow/Characteristics	9660	9660	9660	
Geotechnical Studies	7000			
Hydrology Study/Modeling		10500		
Sampling/Laboratory Expenses	2667	<u>2666</u>	<u>2667</u>	
SUBTOTAL	54277	54206	41097	
			TOTAL	\$ 149,580



Topo/Geo/Soils/Hydro	Site Characteristics	Urban Stormwater Quality/ Flow	Preliminary Construction/ Maintenance Cost	Cultural/Recreation/Education	Habitat Development Options	Wetland Design Option	Land Use/ Ownership/ Permitting	Stormwater Management Goals	Storm Infrastructure	TASKS
	•	•			•	•		•	•	Jack Bond Project Manager
	•	•	٠	•	•	•		•		Mel Lytle Senior Wetland Ecologist
			•		•	•		•		Dan Heagerty QA/QC
		•		•		•	•	•	•	Tim McCann Project Principal
					٠	•				Christine Marshall Wetland Biology
			•			•	•			Rick Attanasio Environmental
	•	•	•			•			•	Engineering Jack Lonergan Civil Engineer
		•	•		•	•				Rick Attanasio Hydrology
•										Soils Engineer